SOUTHEAST MISSOURI STATE UNIVERSITY

DEPARTMENT OF Computer Science COURSE NO. IS330

TITLE OF COURSE Visual Basic Programming II NEW September 2000

I. CATALOG DESCRIPTION AND CREDIT HOURS OF COURSE: IS330 - Advanced Visual Basic Programming. A continuation of IS130. Topics include database access, classes, internet applications, error handling, and activeX controls. (3)

II. PREREQUISITE: IS 130 and IS 275 both with a grade of C or better.

III. COURSE OBJECTIVES:

A. Review designing, coding, testing, and implementing event driven programming.

B. Create SDI (Single Document Interface) and MDI (Multiple Document Interface) applications.

C. Use ADO (ActiveX Data Objects) technology to access and maintain database files.

D. Validate input data and incorporate routines for trapping errors.

E. Search and update database files using SQL (Structured Query Language).

F. Create objects using OOP (Object Oriented Programming).

G. Use intrinsic ActiveX controls and create custom ActiveX code components, ActiveX controls, and ActiveX documents.

H. Distribute applications and components.

IV. EXPECTATIONS OF STUDENTS: Students are expected to:

A. attend and participate in lecture discussions and classroom.

B. complete reading, homework, and exams within a given time frame.

C. complete and submit all assignments and programs in a timely manner.

D. demonstrate a working knowledge of course concepts through satisfactory performance on exams, assignments and programs.

V. COURSE OUTLINE: This course meets three hours weekly. Topics are interleaved rather than taught strictly sequentially so the times indicated are over the whole course,

not necessarily when the topic is first introduced. Case studies will be used where appropriate.

A.	Advanced features of Visual Basic			
	1.	Standards	2	
	2.	Toolbars and pop-up menus	1	
	3.	Debugging	1	
	4.	Collections	2	
	5.	Creating SDI and MDI Applications	1	
	6.	Initialization and Termination procedures	3	**10**
B.	ADO Programming			
	1.	Navigate, view and update databases	3	
	2.	Validate input data and trap errors	2	
	3.	Search and update database files using SQL	4	**19**
C.	Class Modules and OOP			
	1.	User defined data types	2	
	2.	Creating and implementing classes	3	
	3.	Multi-tier applications	2	
	4.	Relation of VB to OOP	2	**28**
D.	Using / Creating Intrinsic ActiveX Controls			
	1.	ActiveX components	3	
	2.	ActiveX documents and ActiveX controls	3	**34**
E.	Programming for the Internet			
	1.	IIS (Internet Information Server)	2	
	2.	ASP (Active Server Pages)	3	**39**
F.	Packaging and Deployment			
	1.	Distribution of applications and components	3	**42**
G.	Tests		3	**45**

VI. TEXTBOOK(S) AND/OR OTHER REQUIRED MATERIALS OR EQUIPMENT:

A. Student textbook: Bradley, Julia C. and Millspaugh, Anita M. A*dvanced Programming Using Visual Basic 6.0*. McGraw Hill, 2000

B. Software: Visual Basic 6.0, Microsoft Office Professional Edition

C. Equipment: IBM PC's or PC-compatibles running Windows 95 or higher.

VII. BASIS FOR STUDENT EVALUATION:

A. Assignments, Labs, Quizzes (20% - 35%)

B. Tests (25% - 40%)

C. Participation (0% - 5%)

D. Final exam (20% - 35%)